

**NEVADA DIVISION OF ENVIRONMENTAL PROTECTION
FACT SHEET**

(Pursuant to NAC 445A.236)

Permittee OpBiz LLC
3667 Las Vegas Boulevard South
Las Vegas NV 89109

Permit No. NV0022985

Facility Aladdin Resort & Casino
3667 Las Vegas Boulevard South
(NE corner of intersection with Harmon Ave)
Clark County
Latitude: 36° 06' 35" North
Longitude: 115° 10' 20" West
T21S R61E S21

General The Aladdin property was purchased by OpBiz LLC on September 12, 2004, and by December of this year will be renamed Planet Hollywood Resort and Casino. The discharge permit is for continuous dewatering of three structures that intercept the water table: the underground parking garage, performing arts center, and hotel tower. The garage and tower systems discharge directly to the county storm drain on the north side of the property, while the arts center discharge reaches that drain via the onsite system. The county storm drain in this area discharges to Flamingo Wash, which in turn discharges to Las Vegas Wash. The discharge is untreated, based on the water quality.

Receiving Water Characteristics The county storm drain system is tributary to Las Vegas Wash, and the standards set at the nearest downstream control point, "Las Vegas Wash at Telephone Line Road" (NAC 445A.199), apply. In addition, the state wide standards for toxic materials, NAC445A.144, are applicable, and Total Maximum Daily Loads (TMDLs) for Las Vegas Wash have been established for phosphorus and ammonia.

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Rational for Permit Requirements Table I.A.1 below is taken from the permit.

Table I.A.1

Parameter mg/l except as noted	Discharge Limitations		Monitoring Requirements ¹		
	30 Day Avg	Daily Max	Sample Location	Measurement Frequency	Sample Type
Flow, gpm	60 ²	-	i, ii, iii	continuous	meter
Total Inorganic Nitrogen	-	20	i, ii, iii	quarterly	discrete
pH, standard units	-	6.5 - 9.0	i, ii, iii	quarterly	discrete
Ammonia as Nitrogen	-	m & r	i, ii, iii	quarterly	discrete
Total Phosphorus	-	m & r	i, ii, iii	quarterly	discrete
Total Dissolved Solids	-	m & r	i, ii, iii	quarterly	discrete
TPH ³	-	m & r	i, ii, iii	annual ⁴	discrete
Minerals ⁵	-	m & r	i, ii, iii	annual ⁴	

Notes:

i, ii, and iii = outfalls 001, 002, and 003, respectively

m & r = monitor & report

1. See Part I.B.1 for detection limit and other analytical requirements.

2. Report average daily discharge for each month per outfall and total. Limit applies to total.

3. Total petroleum hydrocarbons, full range (C8 - C38)

4. Collect sample in fourth quarter.

5. Analyses shall be for antimony, arsenic, barium, beryllium, boron, cadmium, calcium, chromium, copper, fluoride, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, selenium, silver, sulfide, thallium, zinc, and hardness (expressed as CaCO₃).

Although the entire data set, which began in 2001, was examined in preparation for this renewal, most of the averages and characterizations cited below were limited to the 2005 results based on the assumption that the most recent year best represents current conditions in the aquifer.

FLOW - 60 gpm - This limit is carried over from the previous permit and is well in excess of the existing flow, which averaged 3.04 gpm in 2005. The parking garage, arts center, and hotel tower contributions were 2.65, 0.38, and 0.01 gpm, respectively.

TOTAL INORGANIC NITROGEN - 20 mg/l: This limit is taken from the water quality standards at NAC 445A.199. Total inorganic nitrogen is determined from the sum of separate analyses for nitrate, nitrite, and ammonia. The flow weighted average concentration for all three outfalls for 2005 was 8.27 mg/l.

pH - 6.5 - 9.0 standard units - This limit is from the water quality standard mentioned above. pH is an inexpensive and easy analysis that is included in most water quality data sets.

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AMMONIA - monitor & report - This is included due to the TMDL mentioned above, which is 970 lb/day. Based on the 2005 flow weighted average concentration for all three outfalls of 0.749 mg/l, the contribution from this source is 0.0274 lb/day.

TOTAL PHOSPHORUS - monitor & report - This is included due to the TMDL mentioned above, which is 434 lb/day. Based on the 2005 flow weighted average concentration for all three outfalls of 1.006 mg/l, the contribution from this source is 0.0367 lb/day

TOTAL DISSOLVED SOLIDS - monitor & report - This parameter is routinely monitored for all discharges to Las Vegas Wash based on salinity issues in the Colorado River basin. The flow weighted average for all three outfalls for 2005 was 2205 mg/l. Although this is in excess of the water quality standard of 1900 mg/l (NAC 445A.199), treatment has not been required based on it's natural occurrence and difficulty of removal.

TOTAL PETROLEUM HYDROCARBONS - monitor & report - This parameter is included so that migration of any on or off site organic contaminates to the capture zone of the dewatering systems would be detected. There have been no detections for the parking garage discharge, while most samples from the hotel tower yield approximately 1 mg/l, and the arts center has had three detections ranging from 1.7 to 19 mg/l. Parking lot runoff is the likely source for the arts center results, since that stream collects in an onsite drop inlet prior to being pumped to a different location for gravity flow to the county storm drain. Although these samples are now collected prior to mixing with the runoff, the last result was the 1.7 mg/l cited above. A requirement to look for the source of the persistent hotel tower TPH, and the remaining arts center TPH, has been added to the schedule of compliance.

MINERALS - monitor & report - The previous permit required reporting the results of annual analyses for various metals. The results for 2005 are presented in the table below, along with associated standards for comparison purposes. In general, the numerically lowest criteria were selected for the table.

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2005 Discharge Concentrations vs Water Quality Standards

all concentrations mg/l				NAC 445A.144	
	Parking Garage	Arts Center	Hotel Tower	criteria	beneficial use
As				0.050	municipal or domestic supply
Be				0	municipal or domestic supply
B	0.65	0.66	0.82	0.750	irrigation
Cd				0.00413 ¹	aquatic life
Cr		0.0032	0.018	0.1	municipal or domestic supply
Cu			0.24	0.0490 ¹	aquatic life
Fe		1.7	26	1	aquatic life
Pb			0.053	0.00842 ¹	aquatic life
Mn			1	0.2	irrigation
Hg			2.5	0.000012	aquatic life
Ni		0.0063	0.016	0.643 ¹	aquatic life
Se	0.05	0.034	0.025	0.005	aquatic life
Ag				0.0836	aquatic life
Zn	0.043	0.14	1.8	0.433 ¹	aquatic life

1. Based on a hardness of 638 mg/l as CaCO₃ (Las Vegas Wash - BWQP)

As with TDS, these constituents are most likely naturally occurring. In addition, the concentrations are reduced considerably by dilution in the receiving water. The annual mean flows for Flamingo Wash, and Las Vegas Wash below Flamingo Wash, are 9.21 and 19.1 cfs, respectively (USGS 2003). As stated above, the 2005 annual average flow for the hotel tower discharge (which contains most of the excess concentrations) is 0.01 gpm (0.0000223 cfs). These flow rates would result in lead concentrations, for instance, of 0.000000128 and 0.0000000619 mg/l in Flamingo Wash and Las Vegas Wash, respectively.

The requirement to report the results of annual analyses for the metals listed in the table above has been maintained in the current permit. In addition, the list has been expanded to include other inorganic parameters from NAC 445A.144 (all except cyanide): antimony, barium, fluoride, molybdenum, sulfate, and thallium. Calcium and magnesium have also been added so that hardness can be determined, since, as noted in the table, some of the metals criteria are hardness dependent.

Changes from the Previous Permit

FLOW - The previous permit had 30 day average and daily maximum limits both set at 60 gpm. As it is illogical to equate the average of a data set with it's maximum value, this has been discontinued.

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MASS LOADING LIMITS FOR AMMONIA, PHOSPHORUS, AND TDS -The previous permit had seasonal 1 lb/day limits for ammonia and phosphorus. As stated above, the current loads are 0.0274 and 0.0367 lb/day, respectively. Similarly, the previous permit had a 1000 lb/day limit for TDS. Based on a flow weighted average TDS concentration for all three outfalls for 2005 of 2205 mg/l, the contribution from this source is 80.6 lb/day. Given that flow rate is dependent on water table elevation, a 30 fold increase in N and P loading is highly unlikely. As stated above, TDS is already being discharged at a concentration in excess of the water quality standard, based on it's natural occurrence and difficulty of removal. Those same considerations apply to this instance. Based on all the above, the most prudent approach at this point is simply to collect the data so that if at some time in the future it becomes apparent that additional controls are needed they can be implemented uniformly on a watershed basis as the permits come up for renewal. The three mass loading limits cited above have been discontinued.

VOLATILE ORGANIC COMPOUNDS - The previous permit required an annual VOC analyses (8260) based on the same reasoning given above for TPH. Since 2001, the only detections have been for chloroform at 7.2 µg/l in 2004 and acetone at 33 µg/l in 2005. These results are most likely not representative of environmental conditions. Based on this, and the fact that the requirement for annual TPH analyses remains, this requirement has been discontinued.

ANNUAL MINERALS ANALYSES - As stated above, the analyte list has been expanded to include antimony, barium, fluoride, molybdenum, sulfate, thallium, calcium, magnesium, and hardness.

Compliance History There have been no significant compliance issues over the term of the previous permit.

Schedule of Compliance

1. An updated Operations & Maintenance manual is due by the six month anniversary of the effective date of this permit.
2. A report on an investigation into the source of the TPH detections in the hotel tower and arts center discharges is due on the six month anniversary of the effective date of the permit.

Procedures for Public Comment Notice of the Division's intent to renew discharge permit NV0022985, authorizing a dewatering discharge to the storm drain at Aladdin Resort & Casino, is being sent to the **Las Vegas Review Journal** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit must submit written comments to the Division within (30) days of the publication date. The comment period can be extended at the discretion of the Administrator. The deadline for comments is 5:00 P.M. Wednesday July 5, 2006, although letters postmarked on that date will also be accepted.

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A public hearing on the proposed determination can be requested by the applicant, any affected state or interstate agency, the Regional Administrator, or any interested agency, person, or group of persons. The request must be filed within the comment period and indicate the interest of the person filing the request and the reasons why a hearing is warranted. Public hearings granted by the Division are conducted in accordance with NAC 445A.238.

The final determination of the Division may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Proposed Determination The Division has made the tentative determination to renew the proposed discharge permit for a five year term.

Prepared by: Robert J. Saunders
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Bureau of Water Pollution Control
May 23, 2006